



Corporate Standard Technical Working Group

Subgroup 3, Meeting #10

GHG Protocol Secretariat team:

Allison Leach, Iain Hunt, Hande Baybar

October 7th, 2025

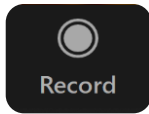


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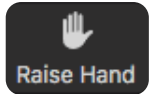


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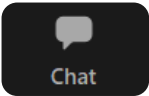
Meeting information



This meeting is **recorded**.



Please use the **Raise Hand** function to speak during the call.



You can also use the **Chat** function in the main control.



Recording, slides, and meeting minutes will be shared after the call.

Agenda

Introduction and housekeeping	10 minutes
Progress updates across subgroups	20 minutes
Data quality	60 minutes
Uncertainty	20 minutes
Wrap-up and next steps	10 minutes



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Today's objectives

1. Review **pulse checks** to be posed at upcoming ISB meeting
2. Consider an additional provision for **justifiable exclusions** for scopes 1 and 2
3. Discuss revised proposal for **data quality** for scope 1
4. Introduce and start discussing **uncertainty**

Today, we will consider a proposal on data quality and will start discussing uncertainty

Housekeeping: Guidelines and procedures

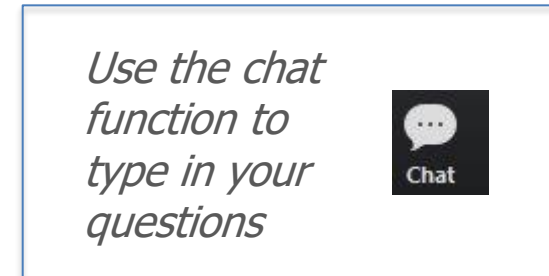
- We want to make **TWG meetings a safe space** – our discussions should be open, honest, challenging status quo, and ‘think out of the box’ in order to get to the best possible results for GHG Protocol
- Always **be respectful**, despite controversial discussions on content
- TWG members should **not disclose any confidential information** of their employers, related to products, contracts, strategy, financials, compliance, etc.
- In TWG meetings, **Chatham House Rule** applies:
 - “When a meeting, or part thereof, is held under the Chatham House Rule, participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed.”
- **Compliance and integrity** are key to maintaining credibility of the GHG Protocol
 - Specifically, all participants need to follow the **conflict-of-interest policy**
 - **Anti-trust rules** have to be followed; please avoid any discussion of competitively sensitive topics*

* Such as pricing, discounts, resale, price maintenance or costs; bid strategies including bid rigging; group boycotts; allocation of customers or markets; output decisions; and future capacity additions or reductions

Zoom logistics and recording of meetings

Zoom Meetings

- All participants are muted upon entry
- Please turn on your video
- Please include your full name and company/organization in your Zoom display name

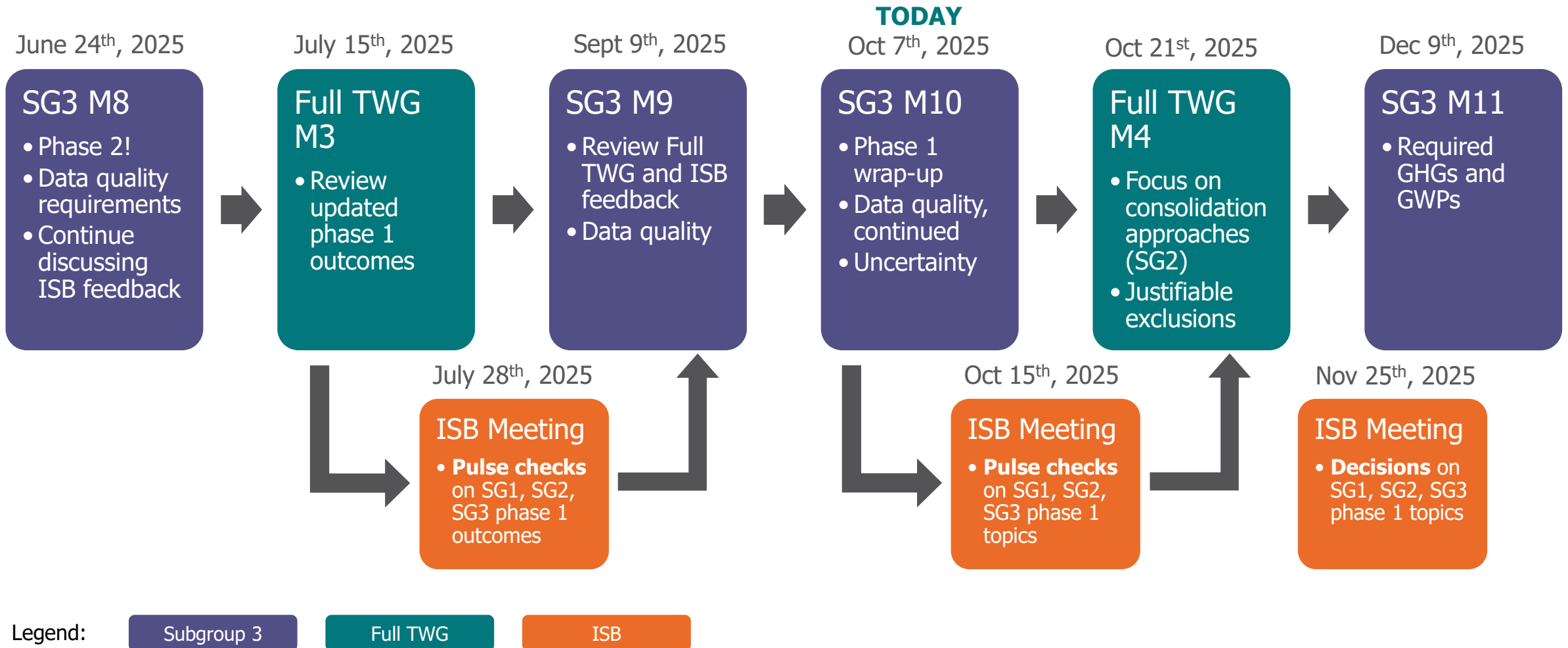


Meetings will be recorded and shared with all TWG members for:

- Facilitation of notetaking for Secretariat staff
- To assist TWG members who cannot attend the live meeting or otherwise want to review the discussions

*Recordings will be available for a limited time after the meeting; **access is restricted to TWG members only.***

Upcoming Schedule





Proposed plan for Subgroup 3, Phase 2

Topic	How to address	Meeting # or timeline
F1. Data quality and uncertainty	Subgroup 3 meetings	SG3 meetings 9 & 10
F2. Guidance on calculation methods	Task force	- October – January: Monthly meetings - February: Task force reports out to Subgroup 3, meeting 13
F3. Guidelines for selecting appropriate emission factors		
F4. Expanded disclosure requirements		
F5. Required GHGs and GWPs	Subgroup 3 meetings	SG3 meetings 11 & 12
F6. Other indirect climate forcers	Subgroup 3 meetings	SG3 meeting 14



Subgroup 3 Task Force plan

Kick-off meeting

- 13 volunteers
- **Tuesday October 28th at 9am ET**
- Goals:
 - Establish ways of working
 - 1 task force or 2?
 - Review scope of work

F.2. Additional **guidance on calculation methods** and their applicability and consider providing a hierarchy of calculation methods.

F.3. Guidelines for **selecting appropriate emission factors** and disclosure requirements for emission factor sources.

F.4. Expanded **disclosure requirements** related to data sources, significant assumptions, descriptions of methodologies used, and disaggregating emissions obtained using different data collection and calculation methods (e.g., primary versus secondary data).

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10 minutes

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10 minutes



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Subgroup 1: Phase 1 progress

Draft for TWG discussion

Topic		Preliminary outcome	Full TWG level of support	ISB level of support (Pulse check poll)
Corporate Standard objectives	Objectives statement	Draft Corporate Standard objectives statement	47 of 47 support (100%) 0 strong opposition (0%) 0 abstain (0%)	11 of 12 support (92%) 0 of 12 oppose (0%) 1 of 12 abstain (8%)
GHG accounting and reporting principles	Relevance and materiality	Update guidance on relevance principle to refer to the term “ materiality ” and provide clarification on the relationship between relevance and materiality as used in external programs (including with a supporting text box on materiality)	41 of 47 support (87%) 3 strong opposition (6%) 3 abstain (6%)	11 of 12 support (92%) 0 of 12 oppose (0%) 1 of 12 abstain (8%)
	Consistency and comparability	Update consistency principle to apply to consistency in methods both over time for a single company and consistency in methods between companies and divisions within companies. Update guidance for consistency principle to clarify relationship between consistency and comparability and how consistency in methods contributes to more comparable information (including with a supporting text box on comparability)	40 of 47 support (85%) 4 strong opposition (9%) 4 abstain (6%)	10 of 12 support (83%) 0 of 12 oppose (0%) 2 of 12 abstain (17%)
	Accuracy and conservativeness	Update guidance for accuracy principle to include language on conservativeness and when companies should consider using conservative methods (including with a supporting text box on conservativeness)	43 of 47 support (91%) 2 strong opposition (4%) 2 abstain (4%)	10 of 12 support (83%) 1 of 12 oppose (8%) 1 of 12 oppose (8%)
	Transparency and verifiability	Outstanding question posed: How should principles be updated to better distinguish between external transparency and verifiability? A. Update transparency principle to more clearly distinguish between external transparency and verifiability (including with a supporting text box on verifiability) B. Delineate separate transparency and verifiability principles	35 of 47 support Option A (74%) 10 strong opposition to Option A (21%) 2 abstain (4%)	<i>Not posed for pulse check</i>

All topics above will likely be brought to the ISB for pulse check in October.

Subgroup 1: Phase 2 progress

Full TWG feedback poll results on preliminary outcomes

Preliminary outcome	Full TWG survey results	Pending items
Companies that have base year established for GHG reduction targets should have the option to use the same year for their inventory base year or choose a different year.	45 of 47 support (96%) 1 of 47 oppose (2%) 1 of 47 abstain (2%)	-
The rolling base year option as currently defined in the Corporate Standard should be eliminated.	41 of 47 support (87%) 2 of 47 oppose (4%) 4 of 47 abstain (9%)	-
Companies should be required to establish a significance threshold as part of their base year recalculation policy.	43 of 47 support (91%) 3 of 47 oppose (6%) 1 of 47 abstain (2%)	Whether the threshold must be quantitative or may be qualitative and/or quantitative
The Corporate Standard should define a prescriptive quantitative significance threshold for base year recalculation.	40 of 47 support (85%) 7 of 47 oppose (15%) 0 of 47 abstain (0%)	Whether to establish as a requirement or as a recommendation

Key questions addressed in Subgroup 1 Meeting 9

(Topic: options for base year recalculation when insufficient data available)

Question	Subgroup 1 poll results
Should backcasting/proxy estimation methods be the preferred option where a method can be applied to provide a reasonable estimate of base year emissions?	Unanimous support (11 of 11) in the case of structural changes Majority support (9 of 11) in the case of other types of events
Should specifying backcasting/proxy estimation methods the preferred option be defined as a requirement or as a recommendation ?	Split opinions: 6 of 11 in favor of a requirement, 4 in favor of a recommendation, 1 abstention
Should disclosure of no base year recalculation be maintained as an option?	Split opinions in the case of structural changes Split opinions in the case of other types of events
Should reestablishing the base year to a more recent year be maintained as an option?	Majority support (7 of 10) in the case of structural changes Majority support (6 of 10) in the case of other types of events

The next meeting of Subgroup 1 will be held on November 11th, with a focus on an **emissions profile over time** and consideration of whether companies should be required or recommended to recalculate/report other years beyond the base year.

Subgroup 2: Phase 1 progress

Topic	Preliminary Outcome	Full TWG level of support	ISB level of support (Pulse check poll)
Financial control approach revision	Working draft text as the direction for revising the financial control approach .	43 of 47 support (92%) 1 strong opposition (2%) 3 abstain (6%)	Support: 11 of 12 (92%) (2 support with minor edits) Oppose: 0 of 12 (0%) Abstain/no response: 1 of 12 (8%)
Operational control approach revision	Working draft text as the direction for revising the definition of operational control .	37 of 47 support (78%) 5 strong opposition (11%) 5 abstain (11%)	Support: 11 of 12 (92%) (4 support with minor edits) Oppose: 0 of 12 (0%) Abstain/no response: 1 of 12 (8%)
Optionality in consolidation approaches*	Maintain optionality in consolidation approaches in the Corporate Standard between the revised financial control and operational control. Pending: Finalizing package for setting organizational boundaries including recommended consolidation approach <i>(proposed package was presented to Subgroup 2 on September 30th, the level of support will be consolidated via a follow-up survey)</i>	33 of 47 support (70%) 5 strong opposition (11%) 9 abstain (19%)	Support: 10 of 12 (83%) Oppose: 1 of 12 (8%) Abstain/no response: 1 of 12 (8%)

* The topics will likely be brought to the ISB for pulse check in October.

Subgroup 3 topics considered at Full TWG Meeting 3 and July ISB meeting

Topic	Subgroup 3 recommendations (preliminary)	Full TWG outcome July 2025	ISB pulse check <i>July 2025 feedback survey ISB members only</i>
Scope 3 requirement	Require scope 3	Majority support	Provisionally approved
	Revise “All significant scope 3” to “at least 95% of scope 3”	Majority support	Support: 9 of 12 Oppose: 2 of 12 Abstain: 1 of 12
Differentiated scope 3 requirement	Adopt the SBTi company categorization approach , pending its finalization, to define eligibility for a less stringent scope 3 requirement	Majority support	Not presented
	Define less stringent level of scope 3 reporting as the most relevant 3 scope 3 categories with flexibility for data quality requirements	Majority support	Not presented
	Operationalize differentiated level of reporting with conformance levels	Majority support	Not presented
Justifiable exclusions for scopes 1 and 2	Maintain exclusions for scopes 1 and 2; make more prescriptive and quantitative	Majority support	Support: 8 of 12 Oppose: 2 of 12 Abstain: 2 of 12
	Boundary: Define separate exclusion thresholds for scopes 1, 2, and 3	Majority support	Support: 6 of 12 Oppose: 2 of 12 Abstain: 4 of 12
	Value: Define a 1% exclusion threshold for scope 1 and scope 2	Majority support	Support: 6 of 12 Oppose: 2 of 12 Abstain: 4 of 12
	Justification: Total scope 1 and scope 2 emissions shall be quantified to justify exclusions	Majority support	Support: 7 of 12 Oppose: 1 of 12 Abstain: 4 of 12

Feedback from ISB on justifiable exclusions for scopes 1 and 2

Topic	Preliminary outcome	Level of support (ISB members)	Feedback from ISB
Justifiable exclusions for scopes 1 and 2	Maintain and make more prescriptive and quantitative	Support: 8 of 12 Oppose: 2 of 12 Abstain: 2 of 12	Support: - Significant improvement over current ambiguity while maintaining practical feasibility Opposition (2 members): Opposition to a rules-based approach and preference for maintaining the current principles-based approach - Concern about the accuracy of the hotspot analysis, which is needed to determine exclusion threshold Interoperability concerns with external programs that use principles-based approach (e.g., materiality) Suggestions for revision: - Consider different exclusion threshold for scope 2 versus scope 1 due to market- and location-based methods Scope 2 TWG should consult on the appropriate scope 2 threshold Explanation of the exclusion should be disclosed
	Separate thresholds for scopes 1 and 2	Support: 6 of 12 Oppose: 2 of 12 Abstain: 4 of 12	
	1% exclusion threshold	Support: 6 of 12 Oppose: 2 of 12 Abstain: 4 of 12	
	Require total quantification to justify exclusions	Support: 7 of 12 Oppose: 1 of 12 Abstain: 4 of 12	

Open question: Should methods for total quantification be defined?

Justifiable exclusions: Methods for total quantification

Topic		Preliminary outcome
Justifiable exclusions for scopes 1 and 2	Justification	Total scope 1 and scope 2 emissions shall be quantified to justify exclusions - Companies shall quantify scope 1 and scope 2 emissions to justify exclusions. - Companies shall disclose and justify the exclusion of any scope 1 emissions and scope 2 emissions.



Discussion question:



Poll question:

Should companies be required to adhere to any minimum data quality requirements when quantifying their total scope 1 and scope 2 emissions to justify exclusions?

- Yes, define minimum data quality requirements (e.g., with data quality tiers)
- No, follow Scope 3 TWG proposal (e.g., recommendation)
- Abstain, I need more information to respond

Proposed by Scope 3 TWG:

Recommendations, but no requirements

- Companies **may** quantify total emissions to justify exclusions using any method in the Technical Guidance (i.e., using actual, calculated or estimated scope 3 emissions) and/or hotspot analysis.
- Companies **should** use the best available data to quantify total emissions to justify exclusions.

Draft accounting and reporting requirements: Subgroup 3 Phase 1

Relevant chapter: Chapter 4, "Setting Operational Boundaries"

- Companies **shall** account for and report at least 99% of scope 1 emissions, 99% of scope 2 emissions, and 95% of total required[^] scope 3 emissions.
- Companies **shall** not exclude any of the following:
 - More than 1% of scope 1 emissions
 - More than 1% of scope 2 emissions
 - More than 5% of required[^] scope 3 emissions
- Companies **shall** quantify scope 1, scope 2, and required scope 3 emissions to justify exclusions.
- Companies **shall** disclose and justify the exclusion of any scope 1 emissions, scope 2 emissions, and required[^] scope 3 emissions.
- Companies **should** account for and report all scope 1 and scope 2 emissions
- Companies **should include relevant*** scope 3 emissions falling within the 5% exclusion threshold
- Companies **should include optional**⁺ scope 3 emissions, where relevant

[^] Required scope 3 emissions = minimum boundary scope 3 emissions

* Relevant emissions = defined by relevance principle and scope 3 relevance criteria

+ Optional scope 3 emissions = any scope 3 emissions that fall outside the minimum boundary

*Note: Based on **preliminary recommendations** from Subgroup 3 meeting 7 and Scope 3 TWG. All thresholds may be revisited after considering phase 2 topics (e.g., data quality).*

Review from ISB meeting 13: The role of GHG Protocol

Is it the **role of GHG Protocol** to define different levels of reporting by entity type?

Option 1A:

Yes, GHG Protocol should **define** different levels of reporting

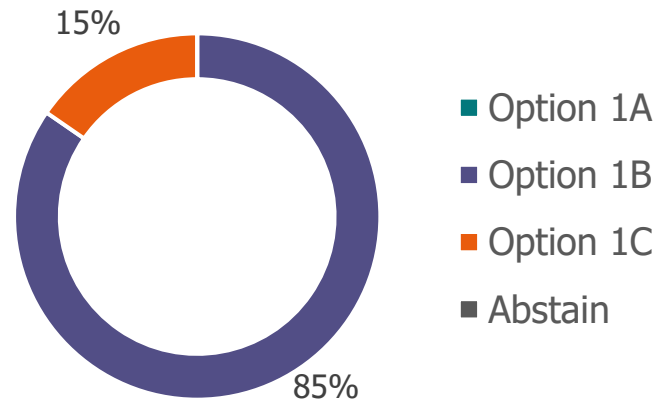
Option 1B:

Yes, GHG Protocol should **recommend** different levels of reporting to external programs

Option 1C:

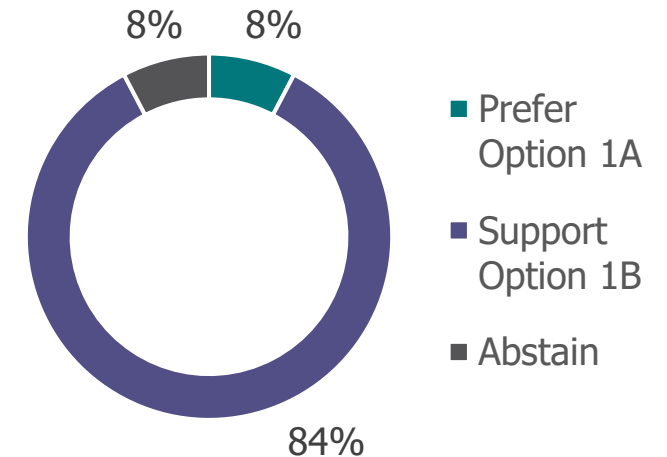
No, only external programs should define different levels of reporting

ISB pulse check at meeting 13:
Majority support for GHG Protocol recommending different levels of reporting to external programs



13 responses, including ISB members and observing entities

ISB feedback survey:
Majority support for GHG Protocol recommending different levels of reporting to external programs



14 responses, including ISB members and observing entities

Review from ISB meeting 13: The role of GHG Protocol

Is it the **role of GHG Protocol** to define different levels of reporting by entity type?

Feedback from ISB members and observing entities:

- Important for GHG Protocol to be **interoperable with external programs**
- GHG Protocol is the **underpinning standard** that should provide guidance
- GHG Protocol should be very clear on **defining good practice**
- **Explanatory papers and blogs** should be written to sharpen the understanding of GHG Protocol's role in the wider ecosystem
- **Alternative proposed option:** GHG Protocol should recommend different levels of reporting for voluntary reporters, NOT for external programs

Take-aways:

- *Majority support* for GHG Protocol **recommending** different levels of reporting
- There will be a **single level of conformance** for GHG Protocol

Open questions for today:

1. What does "**conformance with GHG Protocol**" mean?
2. Who is the **audience**?
3. What **format** should the recommendations take?

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Introduction and housekeeping 10 minutes

Progress updates across subgroups 20 minutes

Data quality 60 minutes

Uncertainty 20 minutes

Wrap-up and next steps 10 minutes



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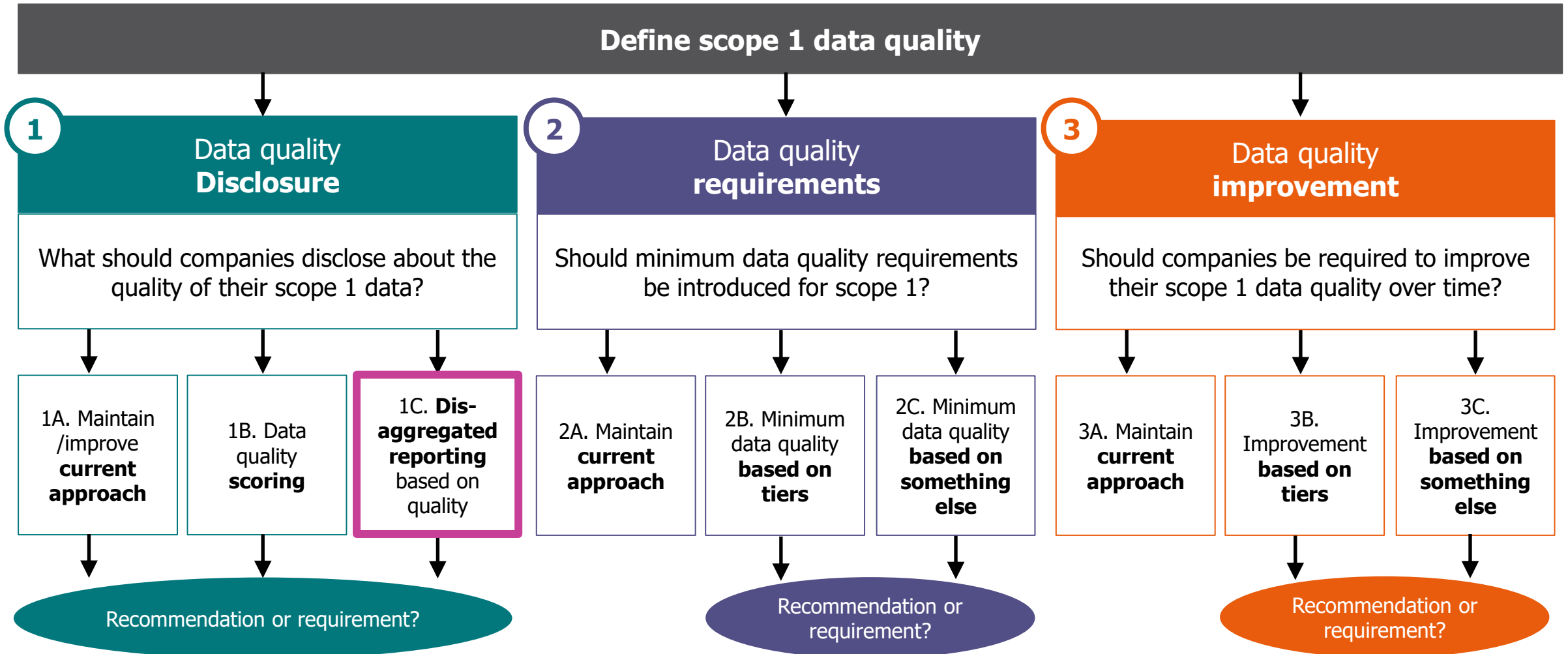


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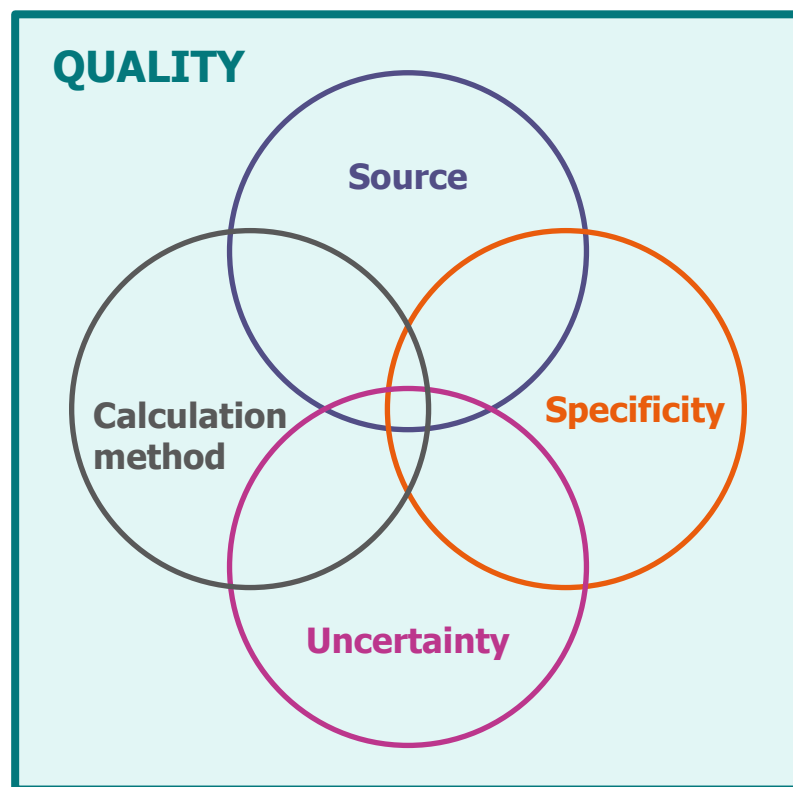
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Conceptual diagram for data quality for Subgroup 3, *revised*



Review: Subgroup 3 Meeting 9 on data quality

Dimensions to data quality



External programs

IFRS S2, ESRS 2, GRI 102, SBTi

Scopes 1 and 2:

- **IFRS, ESRS, GRI:** General requirements (e.g., report sources, methods, assumptions)
- **SBTi CNZS draft v2.0:** Requirement to improve data quality

Scope 3:

- Report extent/percent of emissions calculated using data from suppliers (IFRS, GRI)
- Prioritize high quality data (ESRS, SBTi)

Direct emissions programs

IPCC, EPA GHGRP, EU ETS

- All programs assessed use **tiers** for data quality reporting
- Tiers are based on **data specificity** (including methods, source) and **uncertainty**

Based on **specificity** of the data:

Scope 3 TWG proposal	EPA GHGRP: Stationary combustion	IPCC: National Guidelines for GHG Inventories	EU ETS: Stationary installations Emission factors
Specific	Tier 4: CEMS	Tier 3: Local activity data and technology-specific emissions factors, or activity-specific emissions data (e.g., direct measurement)	NA for emission factors
	Tier 3: Fuel-specific data		Tier 3: One of the following: (a) Determination of emission factor in accordance with relevant provisions (b) Empirical correlation from 2b with limit to uncertainty Tier 2b: Emission factors for the fuel derived based on one of the following: (a) Density measurement (oils, gases) (b) Net calorific value (coal)
Non-specific	Tier 2: Mix of default and fuel-specific data	Tier 2: Local activity data, with conversion factors sourced from national statistics	Tier 2a: Country-specific emissions factors for the respective fuel/material
	Tier 1: Default values to calculate CO ₂ mass emissions	Tier 1: Activity data and emission factors from national statistics and industry averages	Tier 1: One of the following: (a) Standard factors provided (b) Other constant values in accordance with points
EEIO/spend-based			
Unknown/unclassified			

Based on **uncertainty**:

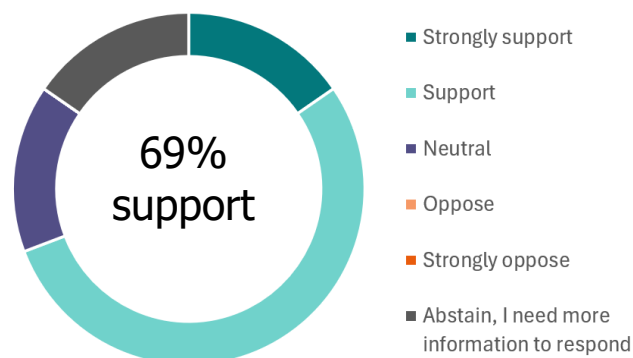
EU ETS: Stationary installations Direct measurement	EU ETS: Stationary installations Fuel or material quantity: <i>Combustion of fuels example*</i>
Tier 4: ±2.5%	Tier 4: ±1.5%
Tier 3: ±5%	Tier 3: ±2.5%
Tier 2: ±7.5%	Tier 2: ±5%
Tier 1: ±10%	Tier 1: ±7.5%

*Number of tiers and % uncertainty values vary by fuel and material

Poll results: Disaggregated reporting based on data quality

Scope 3 TWG proposal

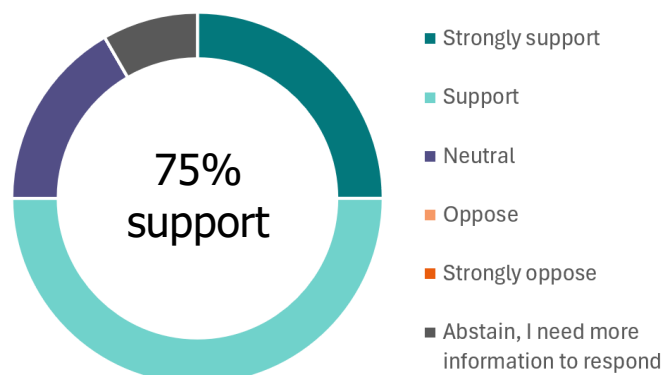
*Majority support for the **Scope 3 TWG proposal** to disaggregate reporting by data specificity **for scope 3 reporting**.*



13 responses

Extending to scope 1

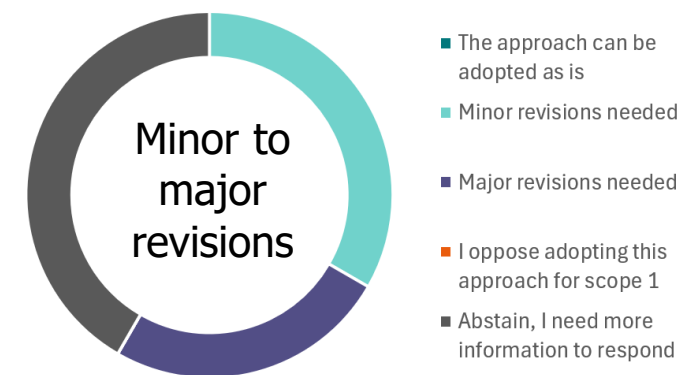
*Majority support for extending the Scope 3 TWG proposal to **scope 1***



12 responses

Revisions needed

*Majority agreement that **minor to major revisions** are needed to extend the Scope 3 TWG proposal to scope 1*



12 responses

Take-aways:

General support for disaggregated reporting using data quality tiers approach, but revisions are needed

Discussion summary: Disaggregated reporting based on data quality

General agreement on:

- **Tiers** approach
- Scope 3 TWG **proposal**
- **Need for revisions** to apply Scope 3 TWG proposal to scope 1 (and scope 2)
- **Consistent approach across scopes** where possible
- **Renaming tiers**

To be discussed today

1. How should the **data quality tiers** be defined?
2. Should **data quality requirements** be defined?
3. Should reporters be required to **improve data quality**?



How should **data quality tiers** be defined?

	Option	Description	Tier names*	Pros	Cons
A	Scope 3 TWG proposal	Define 3 tiers based on data specificity, plus an option for unknown/unclassified	- Specific - Non-specific - EEIO/spend-based - Unknown/unclassified	Simple approach with minimal tiers	- Could miss nuance of scope 1 reporting - EEIO/spend-based is less relevant to scope 1
B	Modified Scope 3 TWG proposal	Additional tier to better align with direct emissions programs	Measured / Tier 4 - Specific / Tier 3 - Non-specific / Tier 2 - Spend-based / Tier 1 - Unknown/unclassified	- Better aligned with direct emissions programs - Recognizes higher quality data in scope 1	- Additional tier adds complexity - Tiers are not perfectly aligned with direct emissions program tiers
C	Calculation method	Tiers are defined based on the calculation method used	Examples: Direct measurement, fuel-based, distance-based, spend-based, average-data, modeled, etc.	Can provide an indication of quality and uncertainty of emissions	- Different applications of the same calculation method could have different levels of quality - Multiple calculation methods may be used
D	Principles approach**	Qualitative approach where reporters use principles* to organize emissions into low, medium, and high quality	- High - Medium - Low	Flexibility for the reporter to apply their judgment	Subjective and would likely be applied inconsistently

The Secretariat recommends option B because it is interoperable with the Scope 3 TWG proposal and most direct emissions programs by adding a high quality “measured” tier

*All tier names are placeholders; alternative suggestions are welcome

**Principles could be based on [WBCSD Pathfinder Framework](#) or Scope 3 Standard data quality indicators (i.e., technological representativeness, temporal representativeness, geographical representativeness, completeness, reliability)

Option A: Data quality tiers using Scope 3 TWG proposal

Activity types	Specific	Non-specific	EEIO/Spend-based
Stationary combustion	- Direct measurement - Energy content of fuel - Carbon content of fuel - Volume/weight of fuel - Fuel-specific EFs <i>'Specific' category is very broad</i>	- Estimated fuel consumption - Industry average emission factors	- Spend-based activity data - EEIO emission factors
Mobile combustion	- Direct measurement - Energy content of fuel - Carbon content of fuel - Volume/weight of fuel - Fuel-specific EFs	- Distance traveled - Industry average emission factors	- Spend-based activity data - EEIO emission factors
Process emissions	- Direct measurement - Measured in physical units - Modeled in chemical or physical modeling	- Volume/weight of material produced - Industry average emission factors	- Spend-based activity data - EEIO emission factors
Fugitive emissions	- Direct measurement - Mass balance method - Volume of refrigerant leaked - Weight of fertilizer - Volume of waste treated - Specific EFs	- Industry average emission factors - Average leak rate by HVAC type - Number of animals	- Spend-based activity data - EEIO emission factors

Note: This table is intended to be a starting point for discussion. It combines activity data, emission factors, and methods.

EPA: Direct emissions from stationary combustion

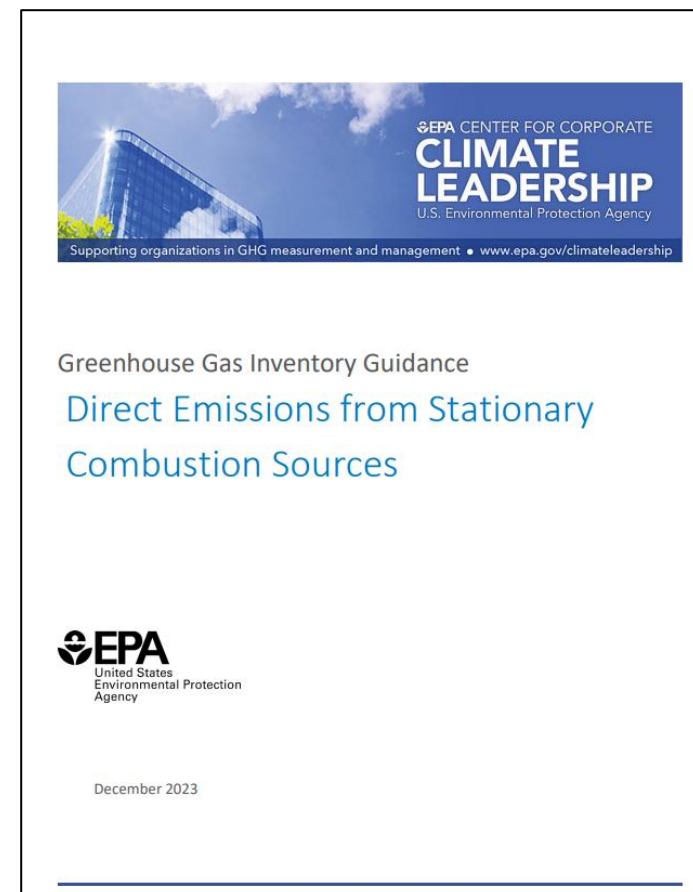
Greenhouse Gas Inventory Guidance: Direct Emissions from Stationary Combustion Sources

EPA outlines 3 methods that vary by specificity:

- Based on fuel carbon content (most specific)
- Based on fuel energy content
- Based on fuel volume (least specific)

→ **Scope 3 TWG proposal categorizes all three as “specific”**

→ **Is this consolidating too much variation into a single data quality tier?**



Option B: Data quality tiers using modified Scope 3 TWG proposal

Activity types	Measured OR Tier 4	Specific OR Tier 3	Non-specific OR Tier 2	EEIO/Spend-based OR Tier 1
Stationary combustion	- Direct measurement - Energy content of fuel - Carbon content of fuel	- Volume/weight of fuel - Fuel-specific EFs	- Estimated fuel consumption - Industry average emission factors	- Spend-based activity data - EEIO emission factors
Mobile combustion	- Direct measurement - Energy content of fuel - Carbon content of fuel	- Volume/weight of fuel - Fuel-specific EFs	- Distance traveled - Industry average emission factors	- Spend-based activity data - EEIO emission factors
Process emissions	Direct measurement	- Measured in physical units - Modeled in chemical or physical modeling	- Volume/weight of material produced - Industry average emission factors	- Spend-based activity data - EEIO emission factors
Fugitive emissions	- Direct measurement - Mass balance method	- Volume of refrigerant leaked - Weight of fertilizer - Volume of waste treated - Specific EFs	- Industry average emission factors - Average leak rate by HVAC type - Number of animals	- Spend-based activity data - EEIO emission factors

Note: This table is intended to be a starting point for discussion. It combines activity data, emission factors, and methods.

Case study: Classification into data quality tiers

Option A: Scope 3 TWG proposal

		Emission factor		
		Emissions calculated from carbon content	Diesel emission factor	Spend-based emission factor for diesel truck
Activity data	Carbon content and volume of diesel*	Specific	Specific	EEIO/spend-based
	Volume of diesel	Specific	Specific	EEIO/spend-based
	Distance traveled by truck	Non-specific	Non-specific	EEIO/spend-based
	USD spent on diesel	Non-specific	Non-specific	EEIO/spend-based

Option B: Modified Scope 3 TWG proposal

		Emission factor		
		Emissions calculated from carbon content	Diesel emission factor	Spend-based emission factor for diesel truck
Activity data	Carbon content and volume of diesel*	Measured	Specific	EEIO/spend-based
	Volume of diesel	Specific	Specific	EEIO/spend-based
	Distance traveled by truck	Non-specific	Non-specific	EEIO/spend-based
	USD spent on diesel	Non-specific	Non-specific	EEIO/spend-based

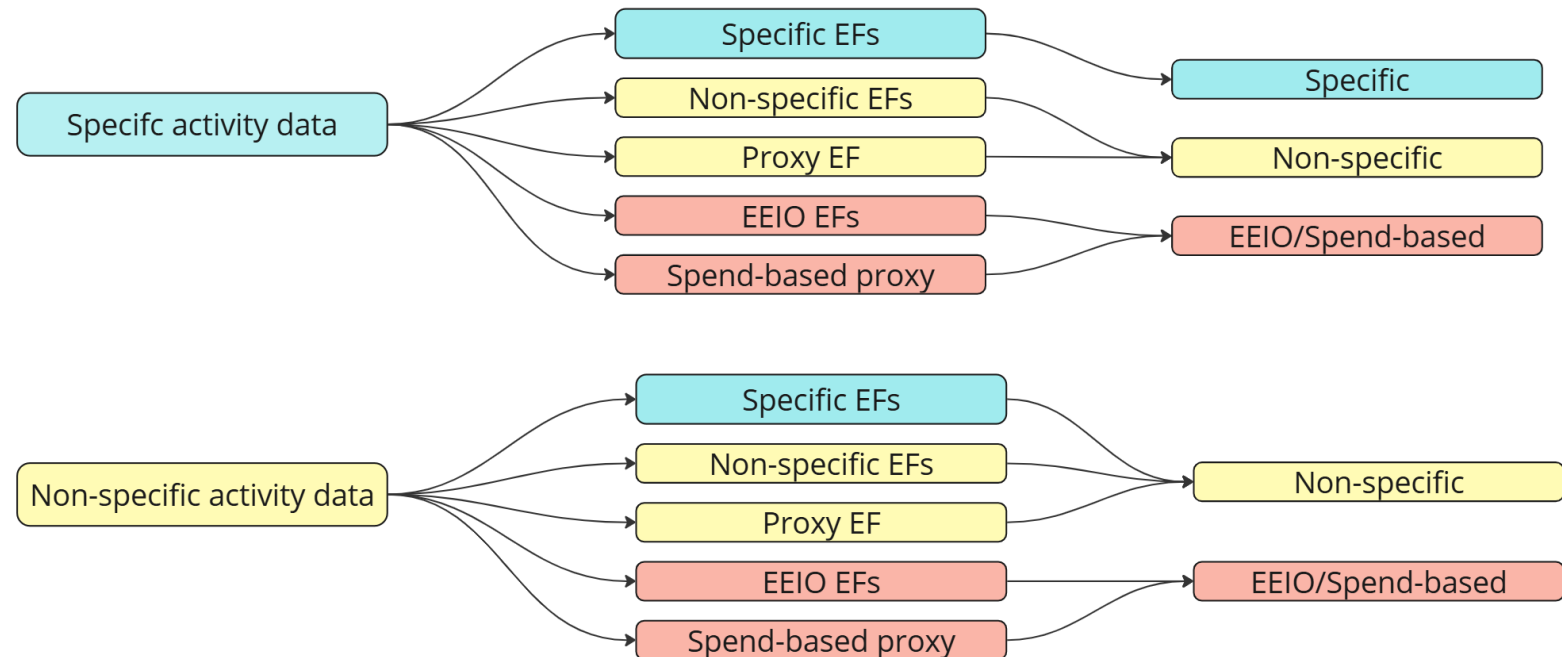
*Assumes carbon content is measurement of actual fuel being consumed (not an average factor)

Classification of data into 4 data specificity tiers

Four options:

- Specific
- Non-specific
- EEIO/spend-based
- Unknown/unclassified

Note: Tier names are not yet finalized and suggestions are welcome



Additional option to support feasibility: Unknown/unclassified

What are specific activity data?

Activity data is classified as specific if **ALL** the following are observed:

Time period	AND	Location	AND	Allocation	AND	Activity-specific rules
The time period of the measurement corresponds to the reporting period		The data is collected from a company's own premises or provided by value chain partners (upstream or downstream), for the specific site and technology/ process/ product/waste fraction, that is relevant to the reporting company		If data is allocated, the allocation is applied consistently among all outputs to avoid under- or over-reporting of emissions, using the allocation guidance		• Fuel, energy, and material consumption: Measured in physical units • Process and fugitive emissions: Measured in physical units, or modelled in chemical or physical modelling • Waste: Measured in physical units or modelled based on the product or process design, and adequately characterized in composition • Services: Measured in physical or economic units adequate to the function of the service

Note: Scope 3 TWG proposed additional rules for categories 9-12. [See data specificity Draft Requirements \(Rules\)](#) for more details.



What are specific emission factors?

Emission factors are classified as specific if they are compliant with the GHG Protocol corporate suite of standards, calculated using latest IPCC AR, and comply with the following requirements as applicable:

Combustion EFs	Fuel-specific
Process and fugitive EFs	Specific to the substance
Location-based electricity EFs	Regional and no more than 3 years old
Market-based electricity EFs	Compliant with the Scope 2 Standard
Waste treatment	Waste-specific by the partner, or waste-specific and technology-specific and geography-representative
Cradle-to-gate EFs shall be disaggregated and cascaded with the specific tier used when:	• Specific data and specific EF are used • Representative for the product (no families) • Previously made studies can be used if re-validated

Data quality tiers



Full Group
Discussion



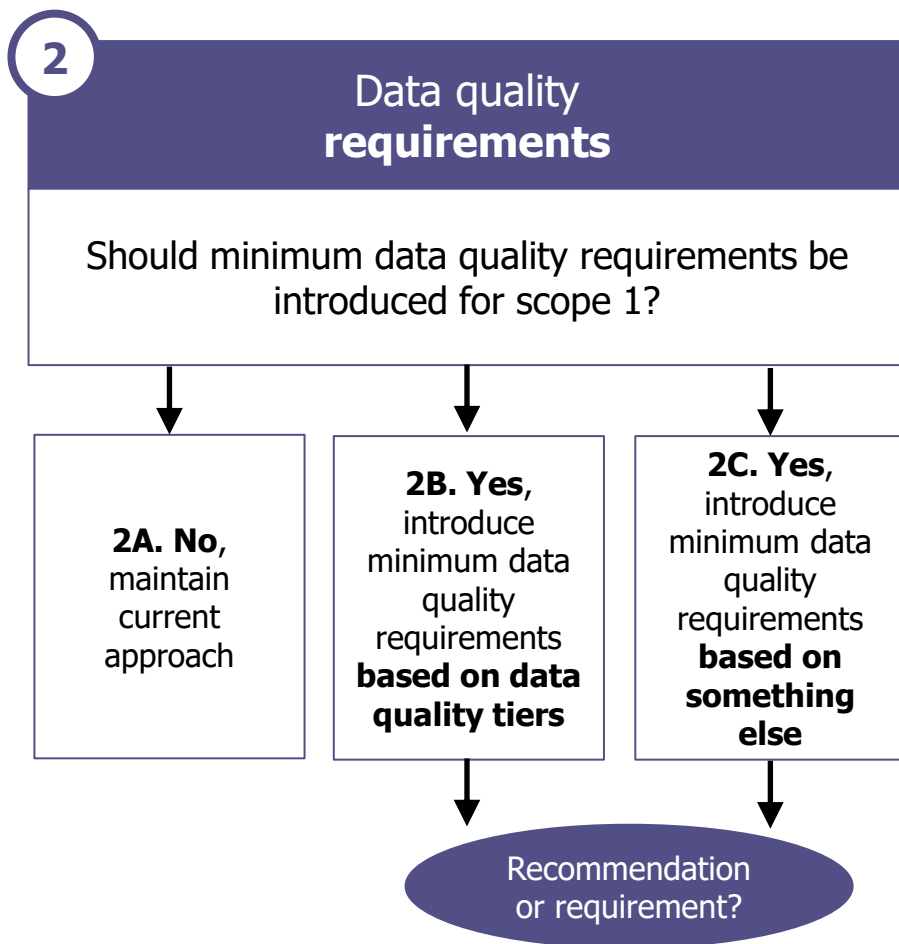
Poll questions

Discussion and poll questions:

1. Should a **single set of data quality tiers** be defined across the entire inventory, or should different tiers be defined **for each scope**?
2. How should the **data quality tiers** be defined?
 - a. Scope 3 TWG proposal
 - b. Modified Scope 3 TWG proposal
 - c. Calculation method
 - d. Principles approach
3. Do you agree with how “**specific activity data**” is defined in the Scope 3 TWG proposal?
4. Do you agree with how “**specific emission factors**” are defined in the Scope 3 TWG proposal?

A	Scope 3 TWG proposal	• Specific • Non-specific • EEIO/spend-based • Unknown/unclassified
B	Modified Scope 3 TWG proposal	• Measured / Tier 4 • Specific / Tier 3 • Non-specific / Tier 2 • Spend-based / Tier 1 • Unknown/unclassified
C	Calculation method	Examples: Direct measurement, fuel-based, distance-based, spend-based, average-data, modeled, etc.
D	Principles approach	• High • Medium • Low

Should **data quality requirements** be defined?



Corporate Standard current approach

Optional information for reporting:

- **"Information on the quality of the inventory** (e.g., information on the causes and magnitude of uncertainties in emission estimates) and an outline of policies in place to improve inventory quality."—page 63

The Corporate Standard provides guidance for developing a quality management system.

Scope 3 TWG recommendation

There are not any minimum data quality requirements recommended for scope 3.

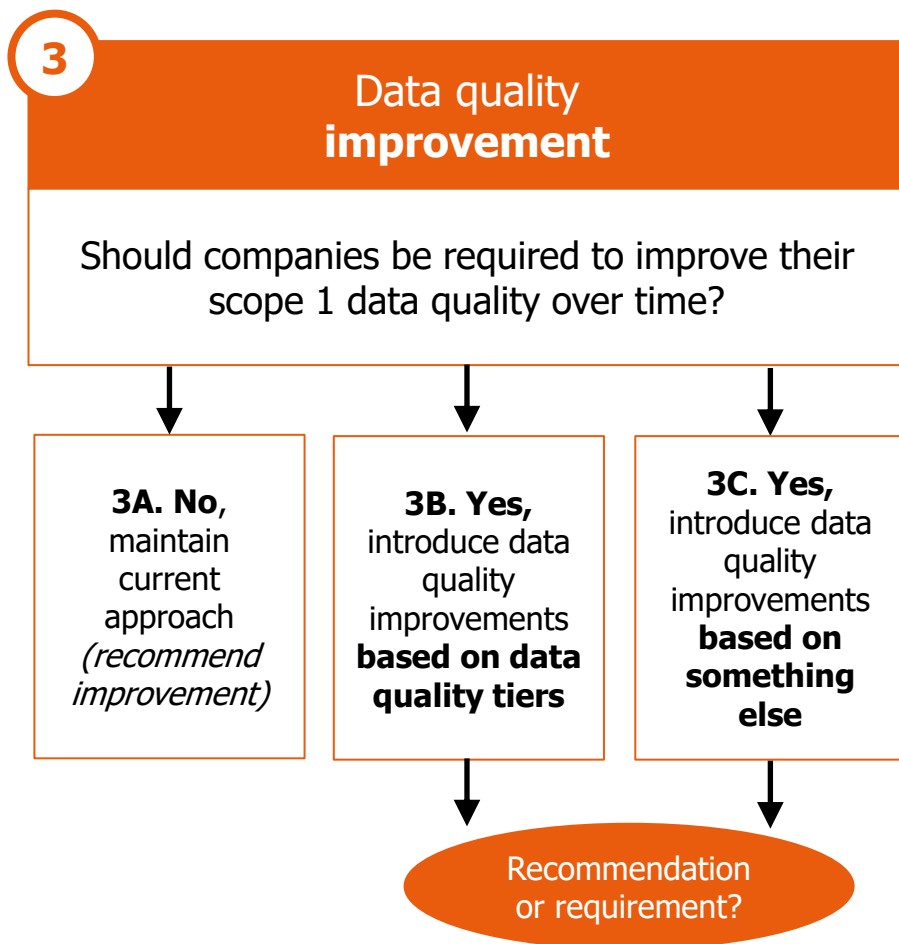
The following applies to emission factors:

- "Companies **should** use data of high completeness (not more than 5% exclusions applied)...
- ... supplemented by uncertainty assessment, and provided with information on its completeness level, data quality assessment, validation process and evidence, and verification level...
- ... Emission factors **should** include import and export into regional models."

Should **data quality requirements** be defined?

	Option	Definition	Pros	Cons
A	Maintain current approach	<i>Recommend</i> companies use the best quality data available	- Maintain status quo Flexibility for reporters	Does not incentivize the use of better quality data
B	Minimum data quality requirements based on data quality tiers	<i>Recommend or require</i> that companies use X tiers for scope 1 reporting For example: Prohibit EEIO/spend-based for scope 1 reporting	- Encourages better quality scope 1 data - Improves comparability	- Could hinder completeness Reduced feasibility because companies would need to collect high quality data
C	Minimum data quality requirements based on something else	<i>Based on criteria defined</i>	<i>Based on criteria defined</i>	<i>Based on criteria defined</i>

Should reporters be required to **improve data quality**?



Corporate Standard current approach

Optional information for reporting:

- "Information on the quality of the inventory (e.g., information on the causes and magnitude of uncertainties in emission estimates) and an **outline of policies in place to improve inventory quality**."—page 63

Scope 3 TWG recommendation

Data specificity goals and metrics

- Companies **should** set a goal for the minimum percentage of their inventory using the "Specific" tier and pursue reaching this percentage as a minimum.
- Companies **should** use data quality metrics like:
 - Share of scope 3 emissions reported in the "Specific" tier
 - Share of value chain partners providing specific data

Data quality improvement

- Companies **should** improve data quality over time and set data quality improvement targets based on established metrics and considering the company context.
- Companies **may** use year-on-year improvement targets, or mid-term horizon targets.

Should reporters be required to **improve data quality**?

	Option	Definition	Pros	Cons
A	Maintain current approach	<i>Recommend</i> companies improve inventory quality over time	- Maintain status quo Flexibility for reporters	Does not incentivize improvement
B	Data quality improvement based on data quality tiers	<i>Recommend</i> or <i>require</i> that companies increase their data quality tiers over time For example: Require that companies increase % specific emissions by X% each year	- Encourages better quality scope 1 data - Improves comparability	- Could hinder completeness Reduced feasibility because companies would need to collect higher quality data - Change in methods may require base year recalculation
C	Data quality improvement based on something else	<i>Based on criteria defined</i>	<i>Based on criteria defined</i>	<i>Based on criteria defined</i>

Data quality: Minimum requirements and improvement over time



**Full Group
Discussion**



**Poll
questions**

Discussion and poll questions:

1. Should **minimum data quality requirements** be introduced for scope 1?
 - a. **No**, maintain current approach
 - b. **Yes**, introduce minimum data quality requirements based on **data quality tiers**
 - c. **Yes**, introduce minimum data quality requirements **based on something else**
 - d. **Abstain**, I need more information to respond
2. Should companies be required to **improve** their scope 1 data quality over time?
 - a. **No**, maintain current approach (recommend improvement)
 - b. **Yes**, introduce data quality improvements based on **data quality tiers**
 - c. **Yes**, introduce data quality improvements **based on something else**
 - d. **Abstain**, I need more information to respond

Agenda

Introduction and housekeeping 10 minutes

Progress updates across subgroups 20 minutes

Data quality 60 minutes

Uncertainty 20 minutes

Wrap-up and next steps 10 minutes



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Uncertainty in the Corporate Standard and Scope 3 Standard

Uncertainty

As defined in the Corporate Standard

1. **Statistical definition:** A parameter associated with the result of a measurement that characterizes the dispersion of the values that could be reasonably attributed to the measured quantity. (e.g., the sample variance or coefficient of variation).
2. **Inventory definition:** A general and imprecise term which refers to the lack of certainty in emissions-related data resulting from any causal factor, such as the application of non-representative factors or methods, incomplete data on sources and sinks, lack of transparency etc. Reported uncertainty information typically specifies a quantitative estimates of the likely or perceived difference between a reported value and a qualitative description of the likely causes of the difference.

-Corporate Standard, page 102



Uncertainty

As defined in the Scope 3 Standard

1. **Quantitative definition:** Measurement that characterizes the dispersion of values that could reasonably be attributed to a parameter.
2. **Qualitative definition:** A general and imprecise term that refers to the lack of certainty in data and methodology choices, such as the application of non-representative factors or methods, incomplete data on sources and sinks, lack of transparency etc.

-Scope 3 Standard, page 141



Uncertainty in the Scope 3 Standard

Types of Uncertainty	Sources
Parameter Uncertainty	• Direct emissions data • Activity data • Emission factor data • Global warming potential (GWP) values
Scenario Uncertainty	• Methodological choices
Model Uncertainty	• Model limitations

- **Parameter uncertainty** = uncertainty regarding whether a value used in the inventory accurately represents the activity in the company's value chain
 - **Single parameter uncertainty** = incomplete knowledge about the true value of a parameter
 - **Propagated parameter uncertainty** = combined effect of each parameter's uncertainty on the total inventory result
- **Scenario uncertainty** = variation in calculated emissions due to methodological choices
- **Model uncertainty** = arises from limitations in the ability of the modeling approaches used to reflect the real world

-Scope 3 Standard, Appendix B

Methods for calculating quantitative uncertainty

GHG Protocol Quantitative Inventory Uncertainty Guidance

Examples of quantitative uncertainty methods

Single parameter uncertainty methods:

- Measured uncertainty (for direct measurement)
- Pedigree matrix approach*, based on data quality indicators
- Probability distributions from commercial databases
- Uncertainty factors reported in literature

Propagating parameter uncertainty methods:

- Taylor series expansion*
- Monte Carlo simulation*
- Bayesian statistics

*Approach is explained in GHG Protocol Quantitative Inventory Uncertainty Guidance



Quantitative Inventory Uncertainty

It is a requirement in the *Product Standard* and a recommendation in the *Value Chain (Scope 3) Standard* that companies perform and report qualitative uncertainty. This document provides guidance for companies wishing to go beyond qualitative and quantify inventory uncertainty.

Introduction

Single parameter uncertainty arises from four types of parameters used in calculating product inventories: direct emissions data, activity data, emission factors, and global warming potential (GWP) factors. Any uncertainties from parameters used to quantify these should also be considered. An important exception to this classification is those cases where emissions are directly measured, in which case uncertainty in that measurement replaces the need to consider activity and emission factor uncertainty.

Parameter uncertainty can be represented by a probability distribution or as a range. Common distributions include, but are not limited to, the normal distribution, lognormal distribution, uniform distribution and triangular distribution¹. For activity data and emission factor data, the log-normal distribution is often determined to be a reasonable fit. Guidance on quantifying parameter uncertainty from direct emissions data has been developed by ISO² and is available in the GHG Protocol's *Measurement and Estimation Uncertainty of GHG Emissions tool*. This guidance focuses on quantifying parameter uncertainty from activity data and emission factors; however, the pedigree matrix approach and many of the propagation techniques discussed below may also apply for direct emissions data.

Different approaches of quantifying single parameter uncertainty include:

- Measured uncertainty (represented by standard deviations);
- The pedigree matrix approach, based on data quality indicators (DQIs)³;
- Default uncertainties for specific activities or sector data (reported in various literature⁴);
- Probability distributions from commercial databases;
- Uncertainty factors reported in literature; and
- Other approaches reported by literature.

Pedigree Matrix

If measured single parameter uncertainties are unknown, a pedigree matrix approach can be used to calculate uncertainties. Once the single parameter uncertainty values have been determined using this approach, the values can be propagated using techniques such as Monte Carlo simulation or Taylor Series expansion (discussed below).

In the pedigree matrix approach, the qualitative data quality assessment results (see section 9.2.8) are used to relate the data quality indicators to uncertainty ranges for individual parameters^{5,6,7}. Data quality assessment results from activity data and emission factors should be translated separately; they are considered together in the propagating parameter uncertainty section.

In the pedigree matrix an uncertainty factor is assigned to each of the five data quality indicators and four data quality criteria (very good, good, fair, and poor). The uncertainty factors are used to compute the GSD² (the square of the geometric standard deviation). These uncertainty factors, shown in table 1, are ultimately based on expert judgment.

GHG Protocol tools for uncertainty

Measurement and Estimation Uncertainty of GHG Emissions

[Download Guidance](#)

[Download Worksheet](#)

Uncertainty Aggregation from the Worksheets 1 and 2		
	Aggregated Uncertainty	Uncertainty Ranking
Step 4: Aggregated Uncertainty for the total of all directly and indirectly measured emissions	+/- 12.0%	Good

Gaussian method

Scope 3 Uncertainty Calculation Tool

[Download Quantitative Uncertainty
Guidance](#)

[Download Uncertainty Calculation
Tool](#)

9a. The total GHG Inventory and 95% confidence intervals are computed					
	Toner Cartridge	Scenario 1	Scenario 2	Scenario 3	Scenario 4
median	155.55	171.10	139.99	186.66	124.44
95% lower bound	96.97	106.67	87.28	116.37	77.58
95% upper bound	249.51	274.46	224.55	299.41	199.60
Lower bar	58.58	64.43	52.72	70.29	46.86
Upper bar	93.96	103.35	84.56	112.75	75.16

Pedigree matrix method

GHG Protocol tool: Measurement and estimation uncertainty of GHG emissions

- **Purpose:** To facilitate aggregation and ranking of statistical parameter uncertainties
- **Method:** First order propagation (Gaussian) method, which requires data with normal distribution
- **Data required:** Activity data, emissions factors, and uncertainty of each data point

Tab 1: Enter indirect emissions data			
Calculation and ranking of uncertainties of indirectly measured emissions			
			For Non-CO2 GHG
User entry: Source description			
User entry: emission factor/activity data values			
User entry: Physical units			
User entry: estimated uncertainties (95% confidence interval)			
Auto calculated value:			
Automated uncertainty ranking			
Steps 1-3			
	A	B	C
	Activity Data (e.g. Quantity of fuel used)	Unit used to measure Activity Data	Uncertainty of activity data (a) (Confidence interval expressed in ± percent)
Example: Source 1	1000.00	GJ	+/- 5.0%
Source description	10.00	GJ	+/- 10.0%

Tab 2: Enter direct emissions data			
Calculation and ranking of uncertainties of directly measured emissions			
User entry: Source description			
User entry: Estimated emissions per source			
User entry: Estimated uncertainties per source (95% confidence interval)			
Auto calculated values:			
Automated uncertainty ranking			
Steps 1-3			
	A	B	
	Estimated GHG emissions in kg	Estimated Uncertainty of calculated emissions	
Example: Source 1	10,000.00	+/- 10.0%	
Example: Source 2		+/- 5.0%	
Source description	100.00	+/- 10.0%	

Tab 3: View aggregated uncertainty		
Uncertainty Aggregation from the Worksheets 1 and 2		
	Aggregated Uncertainty	Uncertainty Ranking
Step 4: Aggregated Uncertainty for the total of all directly and indirectly measured emissions	+/- 12.0%	Good
Auto calculated values:		
Automated uncertainty ranking:		

GHG Protocol tool: Pedigree matrix approach

Pedigree matrix approach

- Assign an **uncertainty scaling factor** based on data quality rating (e.g., very good, good)
- Calculate 95% confidence interval using scores

Table [1] Suggested pedigree matrix for determining uncertainty scaling factors based on data quality ratings

Indicator score	Very good	Good	Fair	Poor
Precision	1.00	1.10	1.20	1.50
Completeness	1.00	1.05	1.10	1.20
Temporal representativeness	1.00	1.10	1.20	1.50
Geographical representativeness	1.00	1.02	1.05	1.10
Technological representativeness	1.00	1.20	1.50	2.00

The total uncertainty, expressed as a 95% confidence interval, SD_{95} (the square of the geometric standard deviation), is calculated using the formula shown below⁸:

$$SD_{95} \cong \sigma_g^2 = \exp \sqrt{[\ln(U_1)]^2 + [\ln(U_2)]^2 + [\ln(U_3)]^2 + [\ln(U_4)]^2 + [\ln(U_5)]^2 + [\ln(U_6)]^2}$$

GHG Protocol Excel-based tool for pedigree matrix approach

Step 1: Definition of Inventory Categories and Emission Factors		Step 5: Update the Data Quality Ratings for the Activity Data				
1a: Enter Names of Materials and Processes	1b: Identify the name of the dataset used	5a. Rank the Reliability of Each Category of Activity Data	5b. Rank the Completeness of Each Category of Activity Data	5c. Rank the Temporal Representativeness of Each Category of Activity Data	5d. Rank the Geographic Representativeness of Each Category of Activity Data	5e. Rank the Technological Representativeness of Each Category of Activity Data
Inventory Category Name	Dataset Name	Activity Data Reliability	Activity Data Completeness	Activity Data Temporal Representativeness	Activity Data Geographic Representativeness	Activity Data Technological Representativeness
Electricity, Manufacturing	Electricity, US, low voltage, at grid, supply mix, kWh	Fair	Poor	Good	Poor	Fair
Electricity, Assembly	Electricity, US, low voltage, at grid, supply mix, kWh	Poor	Poor	Good	Fair	Good
Electricity, Use	Electricity, US, low voltage, at grid, supply mix, kWh	Fair	Very Good	Fair	Very Good	Very Good
Heavy Truck	Transport, lorry, >16t, fleet average	Fair	Poor	Good	Poor	Poor
Aluminum	Aluminum, from primary materials	Poor	Poor	Good	Poor	Poor

Scope 3 Uncertainty Calculation Tool

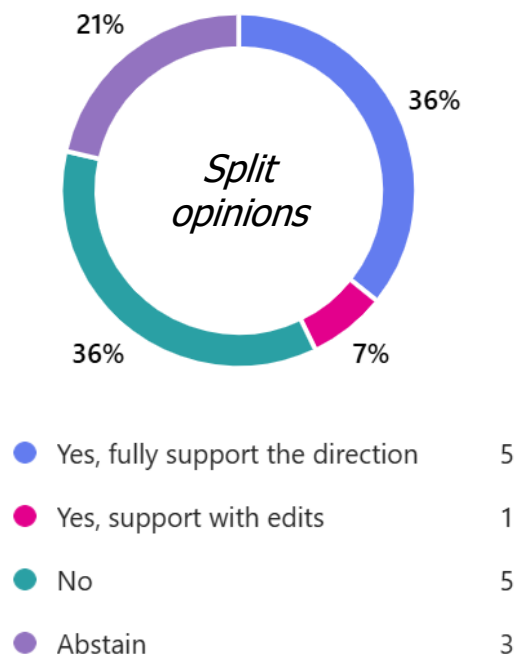
Scope 3 TWG recommendation on uncertainty

Scope 3 TWG recommendation:

Subject to the GHG Protocol providing a standardized method to assess the uncertainty of scope 3 emissions data, then:

- Companies **shall** conduct and report uncertainty assessment* of the data, at a minimum for 80% of scope 3 emissions:
 - Large companies** **shall** conduct and report **quantitative** assessment;
 - Other organizations **shall** conduct and report a **qualitative** assessment.

ISB level of support



Notes and rationale from Scope 3 Secretariat

- Introduces a better proxy for data quality
- Feasibility concerns** and additional burden for companies
- Costs diverted** from decarbonization
- This would be **contingent** on the corporate suite of GHG Protocol standards providing a **standardized methodology**
- The Secretariat does not currently have the budget or capacity to develop such a methodology in the current revision SoW

Given that developing an uncertainty assessment methodology is **beyond the scope of work**, it is unlikely that an uncertainty assessment requirement would be part of the Scope 3 Standard revision.

*Quantitative or qualitative uncertainty assessment

** Large companies to be defined

Discussion and poll questions on uncertainty



Full Group Discussion



Poll questions

Discussion and poll questions:

1. Should an **uncertainty assessment** be recommended or required for scope 1?
 - a. **No**, maintain current approach (define but do not specifically recommend)
 - b. **Yes, recommend** an uncertainty assessment
 - c. **Yes, require** an uncertainty assessment
 - d. **Abstain**, I need more information to respond
2. If yes, what **type of uncertainty assessment** should be recommended or required for scope 1 (Likert scale)?
 - a. **Pedigree matrix approach**, as defined in the GHG Protocol Quantitative Inventory Uncertainty Guidance
 - b. **Gaussian method to aggregate statistical parameter uncertainty**, as defined in GHG Protocol tool
 - c. **Allow companies to choose** an uncertainty assessment
 - d. Other qualitative approach
 - e. Other quantitative approach
 - f. Abstain, I need more information to respond

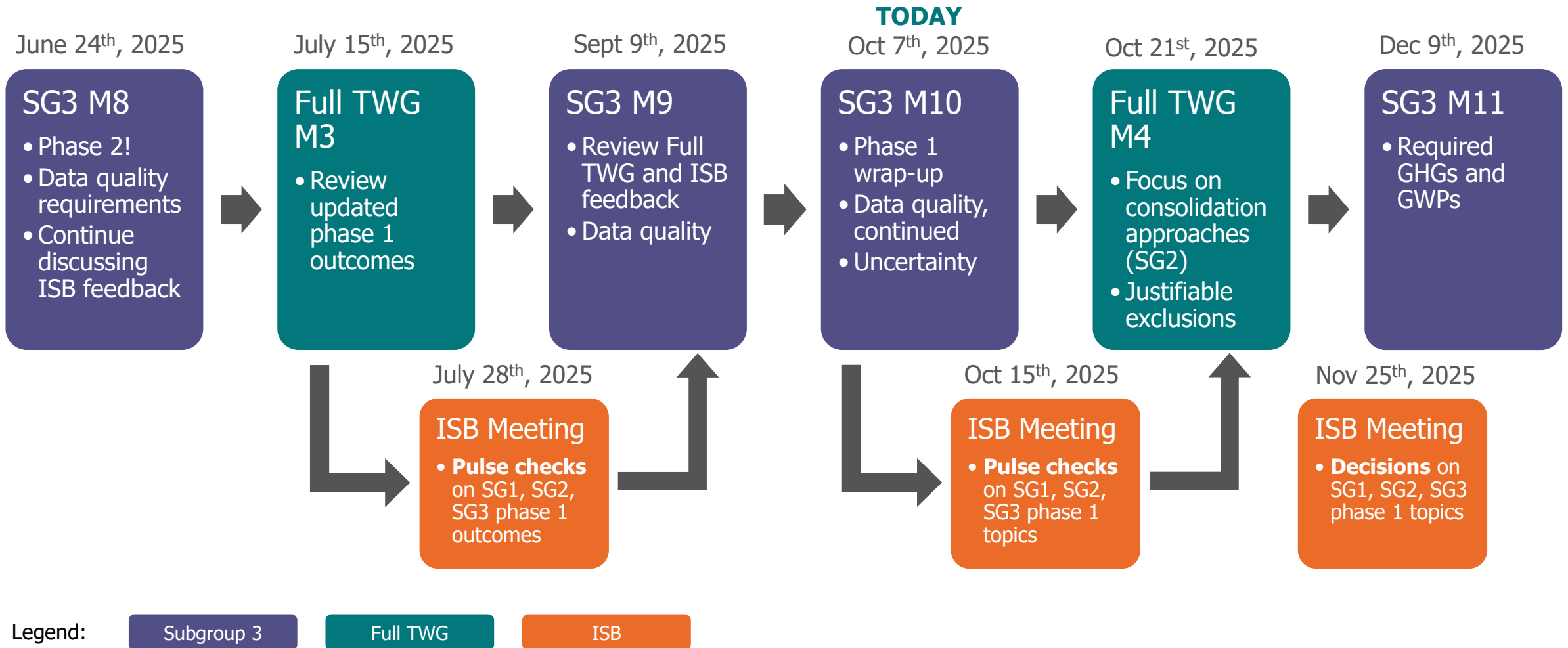
Agenda

Introduction and housekeeping	10 minutes
Progress updates across subgroups	20 minutes
Data quality	60 minutes
Uncertainty	20 minutes
Wrap-up and next steps	10 minutes



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Upcoming Schedule



Next steps

Upcoming meetings:

Full TWG Meeting 4 <i>Focus on consolidation approaches</i>	Tuesday October 21 st	Option 1: 8:00 ET / 14:00 CET / 20:00 CHN Option 2: 16:00 ET / 22:00 CET / 04:00 CHN on Wednesday October 22nd
Subgroup 3 Meeting 11 <i>Wrap up data quality / uncertainty</i> <i>Introduce required GHGs and GWP</i>	Tuesday December 9 th	9:00 ET / 15:00 CET / 22:00 CHN

Items to be shared by GHG Protocol Secretariat:

- Final slides, minutes, and recording from this meeting
- Feedback survey on meeting 10 topics

TWG member action items:

- Review** meeting materials
- Fill out post-meeting **feedback survey**, due data TBD

Thank you!

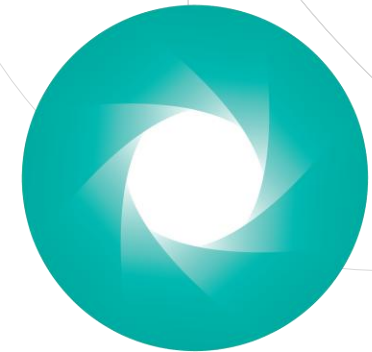
Allison (Alley) Leach, allison.leach@wri.org

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Appendix



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Uncertainty, as defined in GHG Protocol

Uncertainty =

1. **Quantitative definition:** Measurement that characterizes the dispersion of values that could reasonably be attributed to a parameter.
2. **Qualitative definition:** A general and imprecise term that refers to the lack of certainty in data and methodology choices, such as the application of non-representative factors or methods, incomplete data on sources and sinks, lack of transparency etc.

-Scope 3 Standard, page 141

See also:

- [Scope 3 Standard, Appendix B: Uncertainty in Scope 3 Emissions](#)
- [GHG Protocol guidance on uncertainty assessment in GHG inventories and calculating statistical parameter uncertainty](#)
- [GHG Protocol, Quantitative Inventory Uncertainty](#)

Group A – Revisions

Reporting requirements

- A1. Disaggregation of scope 3 inventory data shall be done in 4 tiers, based on **data specificity**
- A2. Introduce a reporting requirement to identify verified scope 3 emissions
- A3. Recommend introducing an **uncertainty assessment add-on** (quantitative for large companies and qualitative for others) *

Recommendations (not requirements) for data quality improvement

- A5. **Minimum data quality** recommendation
- A6. **Data specificity improvement** recommendation
- A7. **Data quality improvement** recommendation

Allocation

- A8. Corporate level data allocation shall be maintained but restricted to only homogenous value chain partners
- A9. Both physical and economic allocation should exist (NO CHANGE to existing *Standard*)
- A10. Explicitly prohibit system expansion with substitution (this is a way of calculating avoided emissions)

Legend:

For discussion today

Unboxed: Not relevant to Corporate Standard

A1

Disaggregation of scope 3 inventory data shall be done in 3 tiers, based on data specificity

Current Standard (2011)

11.1 Required information - Companies **shall** publicly report the following information: [...]

- For each scope 3 category, a description of the **type and source of data**, including activity data, emission factors and GWP values, used to calculate emissions, and a description of the data quality of reported emissions data.
- ... **methodologies, allocation methods, and assumptions** used to calculate scope 3 emissions.
- **percentage of emissions calculated using data obtained from suppliers or other value chain partners.**

Proposed Revised Standard (2025)

- Organizations **shall** report scope 3 inventory emissions disaggregated by the specificity of the data, **in four line items** (tiers) for each scope 3 category:
 - **Specific data:** Emissions calculated using specific activity data and specific emission factors.
 - **Non-specific data (name TBD):** Other (not specific data and not EEIO data)
 - **EEIO / Spend-based data:** Any emissions calculated using EEIO emission factors or other monetary proxy emission factors.
 - **Unknown / Unclassified ***

Notes/rationale

- Promotes transparency and allows inventory users to interpret emissions results
- There are **feasibility concerns**
 - Data management (of both upstream/downstream data) can be onerous, particularly for SMEs; costs can divert from decarbonization
 - Not directly aligned with other standards (e.g. ISO 14083)

Level of support from Scope 3 TWG

- **80% support** (31% strongly)
- 20% oppose (11% strongly)
- *14% level of Abstention ***
- Survey opinion
 - **20%** of members expressed concern re: **feasibility**
 - Combined, **30%** of voting Scope 3 TWG members expressed **feasibly concerns** and/or **opposition**

** Supporting v. opposing percentage values *exclude* abstentions in the denominator

A3

Introducing uncertainty assessment requirement, subject to methodological development

Current Standard (2011)

11.2 Optional information – A public GHG emissions report **should** include, when applicable, the following additional information: [...]

- Quantitative assessment of data quality.
- Information on inventory uncertainty (e.g. information on the causes and magnitude of uncertainties in emissions estimates) and an outline of policies in place to improve inventory quality.

11.3 Reporting guidance – [...] **Optional reporting: Information on uncertainty** - Companies **should** describe the level of uncertainty of reported data, qualitatively or quantitatively, to ensure transparency and avoid misinterpretation of data. In cases where data uncertainty is high, companies should also describe efforts to address uncertainty.

Proposed Revised Standard (2025)

Subject to the GHG Protocol providing a standardized method to assess the uncertainty of scope 3 emissions data, then:

- Companies **shall** conduct and report uncertainty assessment* of the data, at a minimum for 80% of scope 3 emissions:
 - Large companies** **shall** conduct and report **quantitative** assessment;
 - Other organizations **shall** conduct and report a **qualitative** assessment.

Notes/rationale

- Introduces a better proxy for data quality
- Feasibility concerns and additional burden for companies
- Costs diverted from decarbonization
- This would be contingent on the corporate suite of GHG Protocol standards providing a standardized methodology
- The Secretariat does not currently have the budget or capacity to develop such a methodology in the current revision SoW

Level of support from Scope 3 TWG

- **75% support** (33% strongly)
- 25% oppose (36% strongly)
- *14% level of abstention***

*Quantitative or qualitative. * Addressed in 'implementation of standards updates' topic, slides 113 onwards

** Supporting v. opposing percentage values *exclude* abstentions in the denominator

A5

Minimum requirements for data quality (question 12)

Current Standard (2011)

7.3 Guidance for selecting data

- “Companies **should** collect data of sufficient quality to ensure that the inventory appropriately reflects the GHG emissions of the company, supports the company’s goals, and serves the decision-making needs of users, both internal and external to the company...”
- In general, companies **should** collect high quality, primary data for high priority activities (see section 7.1)...
- Companies **should** select data that are the most representative in terms of technology, time, and geography; most complete; and most reliable.

Proposed Revised Standard (2025)

- The following applies to emission factors:
 - “Companies **should** use data of high completeness (not more than 5% exclusions applied)...
 - ... **supplemented by** uncertainty assessment, and provided with information on its completeness level, data quality assessment, validation process and evidence, and verification level...
 - ... Emission factors **should** include import and export into regional models.” *

Notes/rationale

- **Note:** The Scope 3 TWG supports applying a 95% inclusion requirement (5% exclusion threshold) to required scope 3 emissions (as per Table 5.4 for required vs. optional activities)

Level of support from Scope 3 TWG

- **93% support** (37% strongly)
- 7% oppose (0% strongly)
- *10% level of abstention*

* This applies exclusively to emission factors. Emission factors that are calculated by including import (and export) of materials from (to) other markets/countries are expected to be more representative of the regional reality and therefore more accurate.

A6 Data specificity improvement

Current Standard (2011)

- **7.6 Improving data quality over time** - Companies should first apply data quality indicators and assess data quality when selecting data sources (see section 7.3), then review the quality of data used in the inventory after data has been collected, using the same data quality assessment approach.
- Over time, companies should seek to improve the data quality of the inventory by replacing lower quality data with higher quality data as it becomes available.

Proposed Revised Standard (2025)

- Companies **should** set a goal for the minimum percentage of their inventory using the “Specific” tier and pursue reaching this percentage as a minimum. *
- Companies **should** use data quality metrics like:
 - Share of scope 3 emissions reported in the “Specific” tier
 - Share of value chain partners providing specific data **

** This is an additional metric, beyond the metrics presented as an alternative to requiring A.1 Disaggregation.

Notes/rationale

- Introduces feasible and clear minimum requirements
- **Cross-cutting alignment** with the Corporate Standard TWG on GWP values (acceptable IPCC AR)

Level of support from Scope 3 TWG

- **80-93% support** (37-39% strongly) ***
- 7-20% oppose (0-13% strongly)
- *10-20% level of abstention*

* Tiers as per A.1 Disaggregation: Specific, Non-specific, EEIO/Spend-based, and Unknown. *** The above proposed “should” revisions were surveyed via two separate questions and reflected in the above percentage (%) ranges for the first and second revision, respectively.

A7 Data quality improvement recommendation

Current Standard (2011)

- **7.6 Improving data quality over time** - Companies should first apply data quality indicators and assess data quality when selecting data sources (see section 7.3), then review the quality of data used in the inventory after data has been collected, using the same data quality assessment approach.
- Over time, companies should seek to improve the data quality of the inventory by replacing lower quality data with higher quality data as it becomes available.
- Companies are required to provide a description of the data quality of reported scope 3 emissions data to ensure transparency and avoid misinterpretation of data

Proposed Revised Standard (2025)

- #16 - Companies **should** improve data quality over time and set data quality improvement targets based on established metrics and considering the company context.
- #17 - Companies **may** use year-on-year improvement targets, or mid-term horizon targets.

Notes/rationale

- Introduces feasible and flexible recommendations supporting the ambition
- Cross-cutting alignment with other workstreams

Level of support from Scope 3 TWG

- **90-92% support** (23-45% strongly)*
- 8-10% oppose (0% strongly)
- *0-6% level of abstention*

* The above proposed revisions were surveyed via two separate questions and reflected in the above percentage (%) ranges for the first and second revision, respectively.

Draft general requirements for disaggregated reporting

- [G1] Organizations shall report scope 3 inventory emissions disaggregated by the specificity of the data, **in three line items** (tiers) for each scope 3 category: Specific data, Non-specific data, EEIO / Spend-based data.
- [G2] When reported and when passed along the value chain, emissions data shall be **communicated in disaggregated manner**. Emissions shall be disaggregated by scope 3 category and data specificity tier.
- [G3] Emissions data classified as specific, non-specific or EEIO /Spend-based should be **passed along the value chain** and reported by the recipients of the data maintaining the tier, if qualified by representativity.
- [G4] Emissions data within the same tier and the same scope 3 category can be summed up.
- [G5] Emissions data and emissions calculated using activity data or emission factors provided without classification in data specificity tiers, shall be reported into a temporary tier of **Unknown** used during the transition period. Companies shall not use **Unknown** tier of reporting after the transition period, and for more than X% of the scope 3 inventory during the transition period.
- Note:** Transition period duration and maximum percentage allowed for reporting on the tier are for further development*
- [G6] All emissions data, activity data, and emission factors used in scope 3 inventory calculations shall **meet the minimum requirements** (see Chapter 7.X)

Draft calculation requirements for disaggregated reporting

[C1] Specific Rule:

Emissions calculated using specific activity data and specific emission factors shall be classified by a reporting company as **Specific (Tier 1)**.

[C2] EEIO/Spend-based Rule:

Any emissions calculated utilizing an environmentally extended input-output (EEIO) emission factor input (whether country-level or regional), or other proxy emission factors expressed as emissions per monetary unit (e.g., kgCO₂e / \$), shall be classified by a reporting company as **EEIO/Spend-based (Tier 3)**.

Note: Any results (or calculation method) utilizing an activity data input (e.g., unit count product, unit weight fuel, unit weight material, etc.) calculated, estimated, or modelled from or based on spend data (e.g., expenses or COGS) must be classified by a reporting company as Non specific (Tier 2).

[C3] Non-specific Rule:

Emissions not classified as EEIO/Spend-based or Specific shall be reported as **Non-specific** (process-based) data **(Tier 2)**